

Final Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,5,6 and 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glory (JP 08293061 A) in view of Perez (US 5,339,985) and further in view of Ogawa (JP 09099171A).

Referring to claims 1,18-20. Glory discloses a vending machine (Figure 1) comprising:

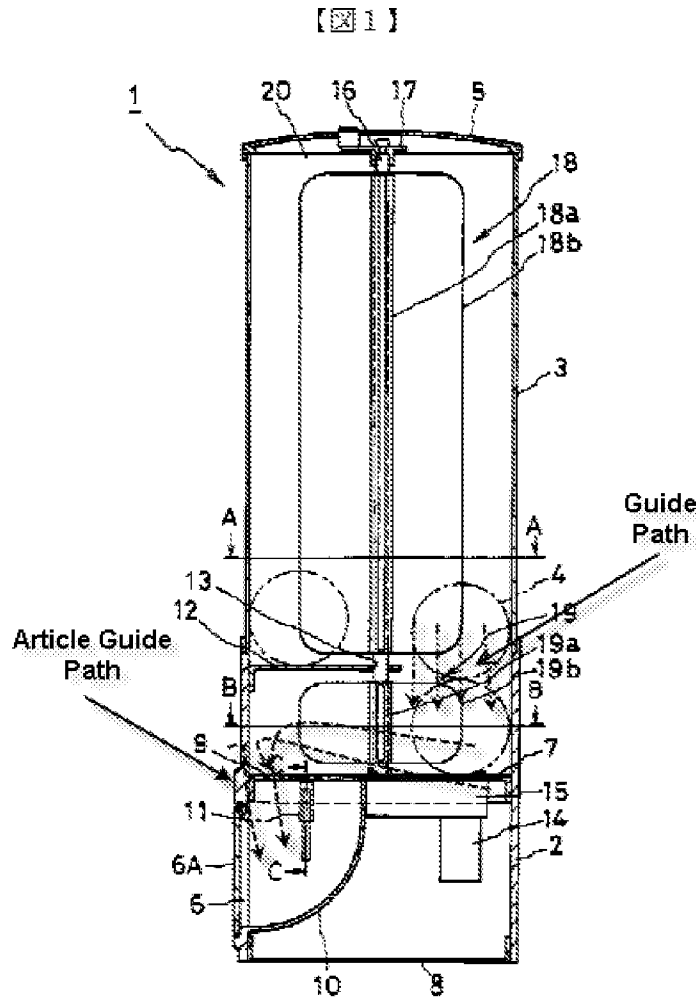
an article stocker (3) that stores a plurality of articles (4);

an article moving mechanism (18) that moves at least one of the plurality of articles (4) stored in the article stocker (3) into an article guide path (see article discharge opening in member 12; right side; Figure 1 or element 9; Figure 3);

drive force generation by a motor by which the machine is driven

the article stocker (3) including a plurality of article receiving paths (see top end of Figure 2; each column partitioned by 18b) in which the plurality of articles (4) are received and vertically stacked one upon another (Figure 1);

the plurality of article (3) receiving paths being arranged to surround (see Figure 2) a vertically extending center line (18a) of the article stocker (3);



the article moving mechanism (18) including a rotational shaft (18a) of which an axis line coincides with the center line of the article stocker (3), the rotating shaft (18a) being driven by the drive force (motor; 14) to rotate the article stocker (3), a first moving mechanism (18a) that moves the articles (4) from the plurality of article receiving paths (top openings of separate columns) to a predetermined position (position right side of member 12; Figure 1) as the rotating shaft rotates (18a), and a second moving

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mechanism (19) that moves into the article guide path (position right side of member 12; Figure 1) the articles (4) that have been moved to the predetermined position (above opening in member 12) by the rotation of the rotating shaft (18a), and the article moving mechanism (18) being constructed so that the rotation of the rotating shaft (18a) causes the article (4) to move from one of the plurality of article receiving paths into the article guide path (as shown in Figure 1 article resting above member 7), the article receiving paths being sequentially selected;

the first moving mechanism (18b) of the article moving mechanism (18) being a free-fall type moving mechanism including: an upper partition wall (12) and a lower partition wall (7), both disposed below the article stocker (3), vertically spaced from each other (see Figure 1), and extending in a direction perpendicular to the rotating shaft (18a); and

an upper through-hole (opening in member 12) provided in the upper partition wall (12) to allow one of the articles (4) to fall therethrough from the selected one article receiving path onto the lower partition wall (7) while the article stocker (3) is rotating about the rotating shaft (18a);

the lower partition wall (7) being formed with a lower through-hole (9) that guides an article (4) to the article guide path (around top of member 7 through opening 9); and

the second moving mechanism (19b) being a rotary moving mechanism provided between the upper partition wall (12) and the lower partition wall (7), and adapted to rotate together with the rotating shaft (18a and 19a are connected) to put the article (4), which has fallen onto the lower partition wall (7), into the article guide path (around top

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of member 7 through opening 9), the second moving mechanism (19b) including a guide wall (19b) provided between the upper partition wall (12) and the lower partition wall (7) and adapted to guide the article (4), which has fallen onto the lower partition wall (7), into the article guide path (around top of member 7 through opening 9).

Glory does not specifically disclose a plurality of article stockers disposed in the dispenser and does not disclose a manually driven manual operation means that is manually driven and a drive force generation/transmission mechanism that generates a drive force.

Perez discloses an apparatus wherein the apparatus (Figure 1) comprises a plurality of article stockers (32) contained in the dispenser to house articles in each article stocker.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Glory to have included a vending apparatus comprising multiple article stockers disposed in the housing as taught by Perez because multiple articles stockers would enable the vending apparatus to house different types of articles thus expanding the selection for a user.

Ogawa discloses a dispensing apparatus wherein a manually driven (by a user) manual operation means (7) that is manually driven (rotatable handle 7; Figure 2); and

a drive force generation/transmission mechanism (37) that generates a drive force by utilizing a force applied from the manual operation means (7) and transmits the drive force to the article moving mechanism as an operation source (see Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Glory in view Perez to include a manual drive force generation and transmission mechanism to drive the article moving mechanism as taught by Ogawa because the vending apparatus would be more energy efficient and be able to operate in remote locations unable to receive electric power.

Referring to claim 3,8,10,11,14,16. See rejection above. Glory discloses a vending machine (Figure 1) wherein the article stocker (3) includes m (m is a positive integer of two or more) article receiving paths (opening for each column in stocker 3) in which the plurality of articles (4) are received and vertically stacked one upon another (Figure 1), wherein the m article receiving paths surround the vertically extending center line (18a), and separation walls (18b), which separate two adjoining paths among the article receiving paths, are arranged to extend radially from the center line (18a) at an angular interval of $360^\circ/m$ ($360/\text{number of columns}$).

Referring to claim 5,6,9,12,13,15,17. See rejection above. Glory discloses a vending machine (Figure 1) wherein a distance between the upper partition wall (12) and the lower partition wall (7) is determined so that the presence of the article (4) that has fallen onto the lower partition wall (7) prevents other articles situated above the

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fallen article from entering into the upper through-hole (opening through member 19; see diameter of article substantially the same as the distance between the upper and lower walls; Figure 1).

Response to Arguments

Applicant's arguments with respect to claim 10-20 have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejections are in light of the references of Glory (JP 08293061 A) in view of Perez (US 5,339,985) and further in view of Ogawa (JP 09099171A). See rejection above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAKESH KUMAR whose telephone number is (571) 272-8314. The examiner can normally be reached on M-F 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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